

SCI QUERI Executive Summary

The central mission of Spinal Cord Injury (SCI)¹ QUERI is the promotion of patient health, functioning, and quality of life, through the implementation of evidence-based methods for enhancing patient self-management and disease prevention in the context of multidisciplinary care. SCI QUERI works closely with VA SCI/D Services to identify the critical, time-sensitive issues important for VHA operations that can be addressed as part of this broader mission.

We continue to focus most of our resources on the project areas of respiratory health, pressure ulcers, and obesity as the primary means for advancing our mission. Recent activities and future plans for each project area are highlighted below.

Highlights of Recent Accomplishments and Future Plans.

Respiratory health. SCI QUERI work in respiratory health has focused on the prevention and management of common respiratory conditions in SCI and smoking cessation. During 2008 we began a RRP involving the use of motivational interviewing strategies to help patients quit smoking. This project will develop and test a program to increase the delivery of tobacco cessation care to veterans with SCI/D who smoke. It will provide critical information for the development of a larger project planned for submission as an SDP in 2009. Also during this year we have completed a grant to determine current practice and barriers to best practice in management of several respiratory illnesses/problems including pneumonia, sleep apnea, chronic obstructive pulmonary disease and tobacco use (project label: GAP). This work is important to help us determine where efforts may be needed to improve care and outcomes. Results of our current work will be used to develop a comprehensive implementation program to prevent respiratory complications through the use of surveillance programs and early interventions.

Additionally, efforts at the health care provider level included educational interventions and follow-up strategies to improve respiratory outcomes in persons with SCI and health care workers. Results of completed QUERI projects were used to guide intervention efforts to increase health care staff vaccination rates, reduce the occurrence of respiratory infections, and discourage health care workers from attending work while ill with respiratory infections during influenza season. Findings are being used by SCI Chiefs to educate staff and encourage optimal respiratory infection control.

Future Plans. We plan to submit an SDP in June 2009 to implement several strategies that are designed to reduce smoking in the SCI population. This project will build upon a currently funded RRP that is testing the use of a computerized tool to facilitate dialogue between patients and providers regarding smoking cessation. It builds upon motivational interviewing and the transtheoretical model (readiness to change). We will target a sample of high outlier sites that have high smoking rates.

Pressure ulcers (PrU). Due to the high cost and frequency of pressure ulcers (PrUs) and the negative impact they have on patient quality of life, prevention and treatment of PrUs remain top priorities for SCI/D Services and SCI QUERI. Activities during FY08 were an extension of work that started in FY07. In follow-up to the October 2007 PrU Collaborative, a face-to-face conference in Orlando, Florida in FY08 focused on system of care issues and new topics in the prevention and monitoring of PrUs. Topics included a new SCI-specific PrU measurement documentation tool, changes in the VA PrU handbook, a new SCI outcomes application with templates to track PrU

¹ Please note that while the SCI QUERI addresses issues for persons with spinal cord injuries and disorders (SCI/D), much of the literature available is based on traumatic injury populations only (SCI). Thus, we use SCI in this document to distinguish when references are specific to individuals with traumatic injuries.

information, the use of telehealth in PrU care, and motivational interviewing to enhance behavior change to prevent PrUs. This conference brought together providers from both SCI centers and SCI primary care teams. Dr. Goldstein serves as the liaison with VA Nursing Outcomes Database (VANOD) about pressure ulcer care. When VANOD data are available, problem areas will be identified and considered for QUERI study and improvement. Dr. Goldstein also is participating on the team revising the VA pressure ulcer handbook on prevention and treatment. There will be specific sections in the handbook that address PrUs in SCI/D.

Dr. Nelson (executive committee member) has an HSR&D-funded project on monitoring PrU healing. While several tools are referenced in the CPG (Pressure Ulcer Prevention and Treatment Following Spinal Cord Injury; Consortium for Spinal Cord Medicine), there is no single accepted, reliable and valid tool for monitoring PU healing in SCI/D. This tool is needed to gauge whether interventions are working, since the PrU CPG recommends that treatment should be changed in cases where there is no evidence of healing over a 2-4 week period. The purpose of this study (VA Nursing Research Initiative; Project Label: PUSH Tool) is to develop a clinical meaningful, valid and reliable tool with specificity for SCI patient populations. This project is scheduled to end 12/08; a toolkit is being developed with support from the SCI SHG to implement this tool across SCI settings of care. A QUERI study is being developed (6/09 submission planned) to compare various implementation strategies for embedding this tool into practice.

On a newly funded RRP, we are working with the Office of Care Coordination to develop and test a disease management protocol (DMP) to prevent PrUs in outpatients at risk of developing PrUs. This RRP is based on the PrU CPG via distance technology and it will be tested in the SCI system of care (including the SCI “hubs” and associated primary care teams at the “spoke” sites) in VISN 10 (Project Label: Telehealth for PrU). The goal of the current project is to develop and test the DMP items. A second RRP funded in 2008 is testing a tool for assessing skin moisture to monitor PrU development (Project Label: Pressure ulcer assessment 2). This tool detects skin moisture as a precursor to skin breakdown. The tool has shown promise in the geriatrics population and holds the potential to assist with assessment of PrUs in patients with darkly pigmented skin.

Finally, a grant (IIR) testing a patient self-management intervention to prevent PrUs has been funded and will be underway in 2009. Part of the intervention addresses health system change. Study site coordinators will implement a PrU decisional support tool. We are collaborating with Diabetes QUERI researchers (Lowery, Reiber) to conduct a workshop on wound management using telehealth at the national QUERI meeting. We will also work with researchers at the VA Health Economic Resource Center (HERC) to develop a prospective cost component to this study.

Future Plans. If the self-management intervention is successful, we plan to implement it across multiple sites (Project Label: Pressure ulcer chronic disease self-management). In preparation for implementation of the self-management program we are working with clinicians at one SCI center to study methods for training clinicians and implementing the PrU self-management techniques (Planned Project label: Motivational Interviewing and Pressure Ulcer Prevention). Additionally, the Telehealth for PrU RRP may prepare for national implementation of the DMP to prevent PrUs. Finally, the skin moisture detection study will provide pilot data for resubmission of an RR&D grant in June 2009 (Project Label: Pressure ulcer assessment 1).

Obesity. We have a number of current and planned projects in the area of obesity that are designed in relation to our long-term goal of developing a weight management program for persons with SCI (project label: SCI MOVE!). In FY 2008, our efforts in this area have been directed towards four projects that will influence the development, refinement and implementation of larger projects. The first project, a RRP (Project Label: Adapting MOVE! Materials), was started in collaboration with Dr. Linda Kinsinger and her colleagues at the VA National Center for Prevention (VA NCP). In this project, SCI QUERI is adapting or developing 30 weight self-management materials for persons with SCI participating in the VA’s Managing Obesity in Veterans Everywhere (MOVE!) program. These materials are currently being reviewed by Dr. Kenneth Jones and his staff at VA NCP. The second project, which is in data collection phase this year, was developed in collaboration with the Northwest

Regional Spinal Cord Injury Systems (NWRSCIS). In this project, we are examining weight self-management practices used by individuals with SCI (Label: Obesity self-management (patients)). The third project, which examined provider weight management attitudes, practices and barriers (Label: Obesity management (provider and system level)) was completed in FY08. Results suggest the need for more education about obesity in SCI and familiarity with programs available within the VA. The last project is our three-year study focusing on the development of an SCI-specific tool that can be used by clinicians to screen for obesity (Project Label: Obesity assessment and impact). This new obesity tool will ultimately be used across the VA SCI&D system of care in monitoring weight and interventions to lose weight.

Future Plans. First, an implementation project to increase provider knowledge and awareness of obesity and its management in SCI is planned (Project label: provider education). Secondly, a grant to implement a pilot project weight loss project will be submitted in 2009 (Project label: SCI wt mgt program). In addition, a database will be developed to study successful weight loss and weight maintenance practices of persons with SCI (Project label: weight strategies database). We plan to continue our collaboration with VA NCP to fully implement a weight loss program for individuals with SCI/D throughout the SCI system of care.

Cross-cutting areas. We have activities ongoing in several areas that we refer to as “cross-cutting”. These projects were designed as additional ways to address the primary themes of our mission (enhancing patient self-management and disease prevention in the context of multidisciplinary care) outside of the primary project areas of respiratory health, obesity, and PrU. Additionally, cross-cutting projects are developed in response to investigator interest and expertise, consumer priorities, VA SCI/D Services, and HQ priorities. Finally, across a number of projects we have increased our focus on implementation science. All SCI QUERI projects converge on the underlying themes of enhancing patient self-management, promoting disease prevention, and building more effective interdisciplinary care.

Physical function/mobility. In SCI/D, physical function/mobility includes issues related to falls, overuse of muscles and mobility concerns. Acute injuries in SCI/D may result from falls from bed and/or wheelchairs. Dr. Nelson (executive committee member) has an HSR&D-funded epidemiological study to examine risk factors for wheelchair falls in SCI (Label: Falls). The results of this work have pointed to a number of factors including poor wheelchair use/transfer skills, especially when patients receive new equipment and as they age. HSR&D provided supplemental funding to use these findings to develop an SCI Wheelchair Fall Risk Tool. A QUERI study is being developed (6/09 submission planned) to compare various implementation strategies for embedding this tool into clinical practice. This study builds on the results of a previous study that identified modifiable risk factors, SCI wheelchair skills training (Label: Wheelchair skills). SCI QUERI will be involved in sharing the results of this study, including implementation of a wheelchair skills training program.

MyHealtheVet (MHV). SCI QUERI continues to work on an important SCI QUERI cross-cutting project to help implement CPGs related to patient self-management by working with MyHealtheVet (MHV), the VA web-based self-management portal for veterans, their families and health care providers. Self-management is critical to numerous preventable and treatable health problems that persons with SCI/D face: bowel care, PrU prevention, depression, and the preservation of upper limb function. MHV developers are creating a condition-specific center for SCI/D with QUERI and SCI/D Services support and input (Label: MHeV for SCI). We are consulting with the MHV team to include evidence-based tools and information. Once the SCI condition center is available, we plan to encourage enrollment of veterans with SCI/D to MHV and evaluate their use and satisfaction with the SCI condition center (Project Label: MHV for SCI). As we identify additional evidence-based materials that are appropriate and relevant for use in SCI/D, we plan to add them to the condition center. For example, we will be adding information from our recently completed RRP on lessons learned from dealing with natural disasters. We will create a checklist/to do list for veterans to help ensure that they are prepared for a possible natural disaster. In addition, the respiratory vaccine

video developed by QUERI will be available on MHV. Finally, we are collaborating with several other QUERI centers (stroke, HIV/HepC, MH) and the MHV program office to present a workshop at the national QUERI meeting with results of the workshop to be submitted for a special issue of the Journal of General Internal Medicine.

Pain and depression. Another cross-cutting area is related to pain and depression associated with SCI&D. In FY 2008 we initiated an implementation project (Project Label: SCI-D: H&S), recently funded through the RRP mechanism, which centers around the coordination of interdisciplinary care for depression between SCI centers and primary care team clinics in VISN 6, using the Consortium for Spinal Cord Medicine CPG for depression as a framework. We are also completing the evaluation of a training program we developed on evidenced-based psychological treatments for pain (Planned Project Label: Pain Train). Finally, we are starting an RRP-funded project to characterize barriers and facilitators experienced during the implementation of interdisciplinary pain care at two SCI centers, and developing an expert panel consensus on what defines best practices in pain management for veterans with SCI (Label: ID Pain).

Future Plans. Results from the ongoing projects are required for the development of follow-up projects of a larger scale. In December of 2009 we will submit an SDP focused on the development of interdisciplinary pain treatment programs at SCI centers.

Operation Enduring Freedom and Operation Iraqi Freedom (OEF/OIF). Due to the attention and concern focused on the needs of returning OEF/OIF soldiers and veterans, we have reviewed (supported by QUERI core funds) all individuals from OEF/OIF admitted to VA SCI centers with traumatic injuries to better understand the unique problems and needs of these service men and women. We have fielded semi-structured questionnaires with providers, reviewed administrative data and conducted detailed chart reviews for 115 OEF/OIF veterans so far. Preliminary analyses of this data have been completed. Findings show that OEF/OIF soldiers and veterans with SCI have other conditions that complicate or delay rehabilitation, including fractures, pressure ulcers, traumatic brain injuries, mental health diagnoses, and resistant infections. They also have greater need for technology and equipment. Although most soldiers return to the community after discharge; many soldiers are still active duty with some returning to military base housing. The results of the provider interviews are in press in Archives of Physical Medicine and Rehabilitation. We are continuing to assess the needs of this population through chart review data collected. These data have been and will continue to be used for VA SCI/D services needs for reporting to the Undersecretary of Health.

Implementation Science: During the past year SCI QUERI has continued to strengthen the theoretical foundation for our work and to pursue implementation science goals. We continue to utilize our implementation science team to develop the use of theory within our projects. Our IRC, Dr. Ullrich, attended this year's Knowledge Utilization colloquium, which helped stimulate our activities in this area. He is participating with QUERI consultant Dr. Cheryl Stetler and other QUERI IRCs in the development of an international collaboration with the PARIHS developers. The aim of this collaboration is to enhance our understanding of the framework, and how it might be appropriately applied and tested within an implementation research project. Also, Dr. Ullrich is working with Dr. Stetler and other IRCs on a project to investigate the PARIHS framework in terms of research literature within and outside QUERI, and to directly investigate QUERI experiences with PARIHS.

We have a special interest in developing and applying measurement tools to our implementation projects. We have been working with investigators from IHD QUERI on a project to test the validity of a PARIHS-based assessment tool (ORCA). We are also collaborating with researchers at the Polytrauma QUERI to test the feasibility and utility of the Organizational Change Manager (OCM). The OCM is being used to assess implementation of CPG recommended care practices as part of our grant testing a patient self-management intervention to prevent PrUs.

Finally, to address the ongoing comment to all QUERIs to incorporate economic assessments into our work, we have formulated an economic subgroup of SCI QUERI that will review proposals, similar to our implementation science group, for possible addition of an economic component to each

planned study. As a first step, we have begun discussions with the HERC to add a cost analysis to the pressure ulcer self-management study that will begin this year.

In summary, during FY 2008 SCI QUERI has made significant progress on numerous implementation and pre-implementation projects. Thus, 2009 is planned to be an especially decisive year as smaller projects are completed and results are applied to the development of larger implementation initiatives that promote the health, functioning, and quality of life of veterans with SCI.